



Airlift Operations Part I 612-501-02



References



DOD 4500.0-R, DTR, Part III, Mobility

FM 55-9, Unit Air Movement Planning

FM 55-65, Strategic Deployment

FORSCOM/ARNG Reg 55-1, Unit Movement Planning



Aerial Movement



- Most units will ship their equipment & supplies via ocean vessels to SPOD & airlift unit personnel to an APOD
- Selected units (airborne, light forces) plan for deploying both equipment & personnel by airlift.



Deployment Authority



- The decision to deploy military forces originates with the NCA
- The CJCS issues the deployment order
- Deployment order addressed to appropriate Unified Commands and the Services



USTRANSCOM



 USTRANSCOM provides global land, sea & air transport to deploy and sustain forces





Air Mobility Command (AMC)



- AMC is USTRANSCOM component command that provides strategic airlift
 - AMC uses organic and commercial airlift assets
 - AMC's Tanker Airlift Control Element (TALCE) coordinates loading & off-loading operations at aerial ports







Deploying Unit Movement Instructions



- Deploying unit's higher headquarters issues movement orders/instructions based on CJCS & MACOM deployment orders/directives:
- Guidance may include: Date/times for movement from HS to APOE Equipment to deploy Special logistical & soldier support instructions



UMC -- Air Movement Responsibilities



UMC

Primary installation POC for airlift operations and coordinating airlift requests Maintains coordination with deploying unit, Army MACOM or ASCC, & AMC POC for aircraft departure times and mission changes Coordinates (along with ITO) installation support for movement to and activities at **APOE**



Unit Preparation for Air Movement







UMO -- General Responsibilities



• UMO:

Coordinates unit airlift planning and preparation activities

+ Includes coordination with higher headquarters & UMC for unit support & procedures during movement to and processing at APOE.



Unit & UMO Preparation Tasks



- Unit has multiple planning & preparation tasks
- Technical assistance available from higher HQ, installation UMC, A/DACG & TALCE
- Unit tasks include: Prepare/review air movement plan with higher HQ. Plan should detail unit actions and include sequence of movement for troops & equipment.



Unit & UMO Preparation Tasks (Cont)



Establishing unit priorities/sequence for arriving at APOD or area of operations

Planning movement to POE (convoy, rail, water, commercial truck)

Preparing movement documentation (vehicle load plans, DEL, HAZMAT)



Unit & UMO Preparation Tasks



Determining ((a) retr) ents for 463L pallets and associated pallet top/side nets & plastic covers Obtaining BBPCT and aircraft shoring & floor materials

Preparing & organizing soldiers for air movement

 Includes designating key personnel, weapons procedures, aircraft safety & manifesting



Unit & UMO Preparation Tasks



(Cont)
Preparing equipment & cargo to include 463L pallet & vehicle loads + Configure equipment for air

- + Weightwefficles and mark center of balance

Ensuring documentation & load plans are complete.

Providing load team training (if required)





Preparing Personnel and Equipment for Air

Movement



Preparing Personnel for Air Movement



- Identify key unit personnel and assign duties & responsibilities
- Key positions include:
 - Unit liaison to A/DACG
 - Facilitates communication between unit and A/DACG
 - + Clarifies processing procedures and resolves problems



Preparing Personnel for Air Movement



• Key positions (CARONT)

- Planeload or troop commander: + Assumes control of all passengers listed for movement
- on the flight + Ensures passengers are briefed on aircraft procedures
- + Ensures necessary support is provided during en route stops



Preparing Personnel for Air Movement (Cont)



Key personnel training:

Unit vehicle drivers & equipment operators may require training in:

+ Aircraft loading & off-loading and proper procedures for restraining unit cargo (under aircraft load master supervision)

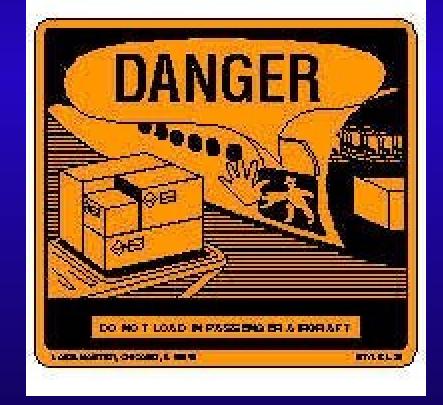


Preparing Personnel for Air Movement



(Cont)
 Key personnel training (Con't)

Personnel preparing hazardous cargo for air movement require training & certification





Preparing Personnel for Air Movement



• Develop and bri(Cophti)lual weapons & ammunition procedures for airlift

opReference TM 38-250 for instructions on packing & certification of ammunition Weapons should be "cleared" before boarding aircraft Personnel requiring loaded weapons must be identified to aircraft commander



Preparing Personnel for Air Movement (Cont)



- Brief personnel
 - Briefing should provide a basic understanding of in-flight responsibilities and procedures for disembarking aircraft.

Briefing should include identification of key personnel (troop commander, load master)





References for equipment preparation in fyd5-9, *Unit Air*

Movement Planning,

Appendix B FM 55-65, *Strategic Deployment*, Appendix C

FORSCOM/ARNG 55-1, Unit

Movement Planning, Chapter 5
DD Form 2133, Joint Airlift Inspection

Record





• Preparing equipment & cargo includes:

Loading pallets & vehicles

Preparing vehicles

Weighing & marking vehicles & pallets

Manifesting Preparing aircraft load plans



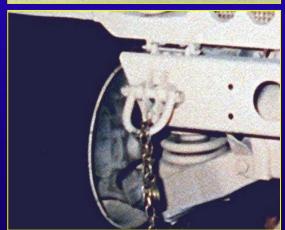






- Preparing equipment & cargo (Cont):
 - Ensuring vehicles & equipment are serviceable
 - Ensuring equipment lifting or tie-down shackles & devices are in position









- Vehicles, self-pro@ent.equipment, and engine powered ground equipment will not be transported with fuel tanks more that 1/3 eff propelled vehicles may be up to 3/4 full for selected deployment (e.g., opposed entry operations) Check with higher hqs & A/DACG
 - Bulk fuel servicing trucks and trailers must be drained or purged





- All Vehicles, equipment and other cargo will be inspected prior to loading aboard aircraft
 - DD Form 2133, Joint Inspection Airlift Record used by TALCE.
 - Equipment checked for serviceable engine and brakes, fluid leaks, proper fuel levels, and secured battery



Load Pallets & Vehicles



- Deploying unit ensures pallets & vehicles are properly loaded for air movement:
 - movement:
 Hazardous cargo must be prepared & loaded IAW TM 38-250 (AFJM 24-204)
 - 463L pallets are built with unit cargo, covered, and then restrained on the pallet using cargo nets



Load Pallets & Vehicles (Con't)



- Supplies & equipment are loaded on vehicles IAW with unit's vehicle load plans & firmly secured to prevent movement
 - Shifting cargo presents an unsafe condition for aircraft flight
 - Vehicle loads must not exceed rated cross-country capability for the vehicle



Load Pallets & Vehicles (Con't)



 Maintain a Vehicle Load Card (FORSCOM Form 285-R or DA Form 5748-R) for each cargo-carrying vehicle

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VEHCLE LOADCARD





SUMMARY





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QUESTION 1: What reference documents provide guidance for preparing unit HAZMAT for movement by air? Answer 1: TM 38-250, Preparing Hazardous Materials for Military Air Shipments, and the International Air Transport Association - Dangerous Goods Regulation





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QUESTION 2: What installation staff position is the unit's primary point of contact for airlift operations?

Answer 2: The Installation's Unit Movement Coordinator (UMC)





Aircraft Load Planning



Aircraft Load Planning



 Deployment planners and deploying unit follow 2 basic steps in developing load plans:

Step 1:Identify the total number of personnel, amount of equipment & general sequence of movement

Step 2: Design loads for each aircraft



Aircraft Load Planning (Cont)



Information gathered in Step 1 is documented on the following preliminary load planning tools:

- + DD Form 2327, Unit Aircraft
 Utilization Plan Used to estimate
 the number & types of aircraft that
 will be needed
- + DD Form 2328 Summarizes the data from DD Form 2327



Aircraft Load Planning --General Guidance



- Use DOD 4500.9-R, FM 55-9, & FORSCOM/ARNG 55-1
- General guidance & considerations:
 - Position personnel, equipment and supplies to facilitate off-load
 - + Avoid floor-loaded cargo on aircraft planned for rolling stock



Aircraft Load Planning --General Guidance (Cont)



Positioning personnei, equipment and supplies (Cont)

- Load vehicles facing the exit ramp
- + Load trailers with their prime mover
- Place palletized cargo aft of rolling stock & passengers



Aircraft Load Planning --- General Guidance



Plan for the us (2014) 41 or C-17 aircraft for majority of strategic movement of unit equipment & cargo







Aircraft Load Planning -- General Guidance

(Cont)



C-5
aircraft
are limited
assets
best used
for outsize
items





Aircraft Load Planning --- General Guidance



C-130 aircraft (Combon are primarily used for tactical airlift operations





Aircraft Load Planning -- General Guidance



Identify a min (Cont) 2 passengers with each load of equipment or cargo to act as custodians if aircraft should be diverted & cargo down-loaded somewhere other than original destination Qualified operators should be transported with self-propelled vehicles

Aircraft Load Planning - General Guidance



Refer to 18 55-46-Standard (Conte)

Characteristics for Transportability of Military Vehicles & Other Outsize / Overweight Equipment for initial equipment configuration & dimensional planning information

MY TB 55-46-1
NAVY NAVFAC P-1055

TECHNICAL BULLETIN

STANDARD CHARACTERISTICS
(DIMENSIONS, WEIGHT, AND CUBE)
FOR TRANSPORTABILITY OF MILITARY
VEHICLES AND OTHER OUTSIZE/OVERWEIGHT EQUIPMENT
(IN TOE LINE ITEM NUMBER SEQUENCE)

Approved for public release; distribution is unlimited

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1 JANUARY XXXX

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Aircraft Load Planning --- General Guidance



Reference FM (COMIT)

ensure pallet weight, axle loads, wheel loads, tire footprint loads & general floor loads conform to the fuselage zone, compartment & loading limitations for the aircraft

DEPARTMENT OF THE ARMY Washington, DC, (Month/Year) FM 55-9 UNIT AIR MOVEMENT **PLANNING**



Aircraft Load Planning Load Shoring



- Unit might have to provide shoring when shipping some vehicles/equipment by air
 General guidance & considerations:
- - Rolling shoring protects aircraft floor when loading equipment
 - Parking shoring protects floor from concentrated loads
 - Sleeper shoring is used under the axle or frame of equipment



Aircraft Load Planning --Load Shoring (Cont)



- General guidance & considerations
 (Cont):
 (Cont):
 must ipping tracked vehicles usually must use rolling shoring and parking shoring
 - Tracked vehicles could deploy with new rubber pads but redeploy with worn pads & need shoring If shipping large pneumatic tired vehicles & equipment, must use sleeper shoring



Aircraft Load Plans



Identify aircraft allowable cabin load. Seek assistance from higher HQ and UMC early in planning to obtain accurate information on aircraft cabin load for specific deployments

Goal is to develop load plans that support unit mission while maximizing aircraft utilization



Aircraft Load Plans (Cont)



Cross-loading of like capabilities helps prevent total loss of capability due to aircraft diversion or delay



Example: If all of a deploying unit's communications equipment is loaded on a single aircraft, & that aircraft fails to reach the mission location, the unit's communications capability is severely impacted



Manifests



- DD Form 2328 takes the data from DD Form 2327 & summarizes it to identify quantities & type of aircraft planned for the air move
- Once loads have been designed for each aircraft, prepare:

DD Form 2130 Cargo Manifest
DD Form 2131 Passenger Manifest

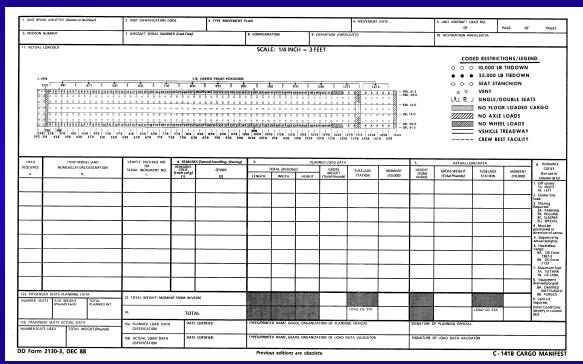


Manifests (Cont)



DD Form 2130Cargo Manifest

Lists all cargo loaded on aircraft



C-141B cargo manifest DD Form 2130-3



Manifests (Cont)



DD Form 2131
 Passenger
 Manifest
 Lists all personnel
 aboard aircraft

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SUMMARY





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QUESTION 1: What reference can be used to determine the type of aircraft specific unit equipment is certified for movement on?

Answer 1: TB 55-46-1, Standard Characteristics for Transportability of Military Vehicles and Other Outsize / Overweight Equipment.





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QUESTION 2: What forms are used to manifest passengers and cargo deploying by air?

Answer 2: DD Form 2130 series & DD Form 2131.





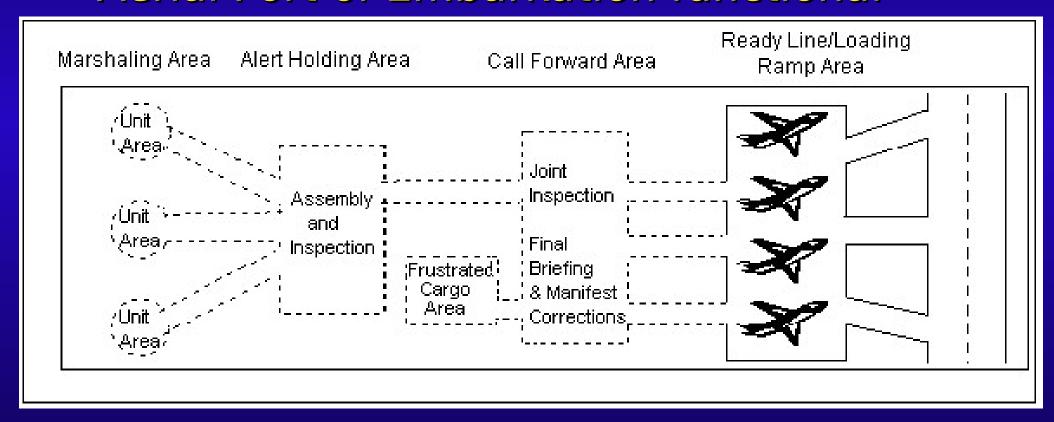
Aerial Port of Embarkation Operations



Notional APOE



Aerial Port of Embarkation functional

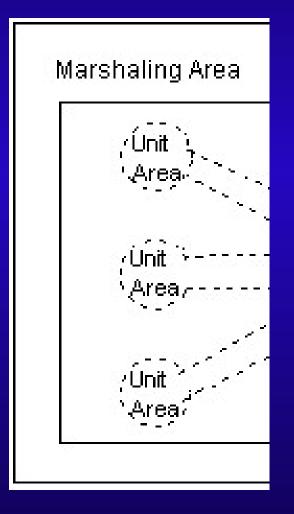




Notional APOE --Marshaling Area



- Marshaling area
 - Deploying unit area of
 - responsibility
 Unit conducts
 final preparations
 for air movement





Marshaling Area Responsibilities



- Deploying units responsibilities include:
 - Establish liaison with A/DACG
 - Perform preparation of vehicles &
 - Prepjare patssenger & cargo manifests
 - Assemble personnel, supplies & equipment into plane loads (chalks)
 - Ensure planeload/troop commanders briefed & escorts assigned (if required)



Marshaling Area Responsibilities (Cont)



- A/DACG responsibilities include:
 - Establish liaison with unit & TALCE
 - Coordinate with TALCE for USAF technical assistance for deploying unit
 - Call unit chalks forward to Alert Holding Area



Notional APOE --Alert Holding



- Alert Holding Are Area
 A/DACG area of responsibility
 - Equipment, vehicle and passenger control area

Equipment & documentation is pre-inspected

Alert Holding Area Assembly and Inspection



Alert Holding Area Responsibilities



- Deploying units responsibilities include:
 - Ensure chalks arrive in Alert Holding Area when scheduled
 - Provide A/DACG with passenger/cargo manifests
 - Correct any unit chalk discrepancies
 - Pass control of unit chalks to A/DACG



Alert Holding Area Responsibilities



- A/DACG respons(Goat)include:
 - Ensure the unit loads arrive on time
 - Receive & inventory unit chalks
 - Inspect chalks for completeness
 - Verify accuracy of weight & center of
 - Establish a discrepancy correction area



Alert Holding Area Responsibilities



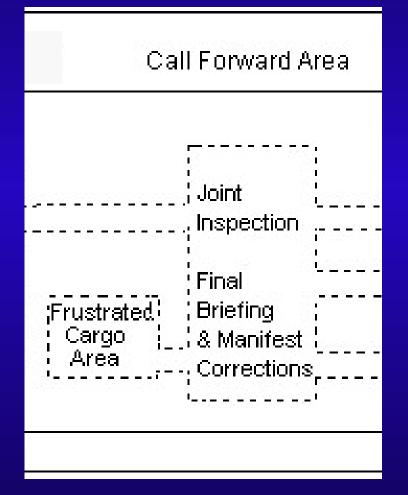
- A/DACG respons(GOBE)include: (Cont)
 - Inspect documentation for accuracy & completeness
 - Provide limited maintenance, POL & related services as needed
 - Coordinate MHE support
 - Direct chalks to the joint inspection area (call forward area)



Notional APOE --Call Forward Area



- Call Forward
 Ar@al area of responsibility
 between A/DACG & TALCE
 - TALCE Used for joint inspection of deploying equipment & documentation





Call Forward Area Responsibilities



- A/DACG responsibilities:
 - Maintain communications with unit &
 - Ensure unit passenger/cargo manifests are correct
 - Ensure all time tables are met
 - In coordination with deploying unit, ensure all discrepancies identified during joint inspection with TALCE are corrected



Call Forward Area Responsibilities



- A/DACG responsible (Cont)
 - Provide load team personnel & support equipment (safety, MHE, pusher vehicle)
 - Ensure load team members properly
 - Escort unit chalks to ready line & ensure all unit personnel are briefed on flight
 - Provide limited logistics support (defueling, maintenance) for deploying



Call Forward Area Responsibilities



- TALCE responsib(i位面面tr)clude:
 - Coordinate with A/DACG on any changes due to aircraft configuration
 - Conduct joint inspection with unit &
 - Provide passenger briefing for on/offload procedures and for flight line safety
 - Provide team chief for aircraft load team
 - Notify A/DACG when to dispatch unit chalks to the loading ramp/ready line

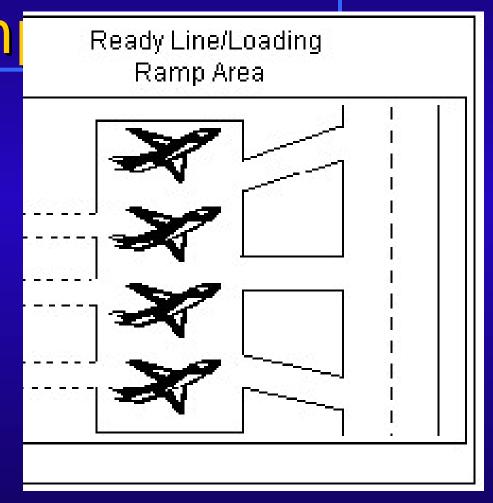


Notional APOE --Ready Line/Loading



- Ready Line/ Loading Ramp Area
 TALCE area of responsibility
 - TALCE controls all passengers/carg o & stages chalks

for aircraft





Ready Line / Loading Ramp



- Planeload Responsibilities reasonesibilities reasonesibilities passengers
 - Retains copy of final passenger/cargo
 - Provide unit assistance, as required, to assist load master in securing vehicles
 - Ensures vehicle drivers follow loadmaster instructions for loading equipment



Ready Line / Loading Ramp Responsibilities (Cont)



- A/DACG responsibilities
 - Transfers control of aircraft loads to the TALCE
 - Provides load teams to assist in loading aircraft
 - Maintains coordination with the deploying unit representative and the TALCE



Ready Line / Loading Ramp Responsibilities (Cont)



- TALCE responsibilities:
 - Accept chalks from A/DACG & load
 - Ensure each chalk is positioned to its
 - Eircraft all drivers briefed on flight line
 - Mafettain liaison with Air crew and
 - A/DACG Maintain communications with unit & A/DACG



Ready Line / Loading Ramp Responsibilities



- TALCE responsibilities (Cont):
 - Coordinate with aircraft primary loadmaster & ensure loads are placed
 - phoard aircraft on time, if required
 - Escort passengers to aircraft
 - Provide primary loadmaster with required copies of passenger/cargo manifests





Summary





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QUESTION 1: What APOE area is used by the deploying unit to make final equipment preparations?

Answer 1: Unit Marshaling Area





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QUESTION 2: What APOE area is used for transferring control of unit aircraft loads to the A/DACG?

Answer 2: The Alert Holding Area













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QUESTION 1: What APOE area is used for the joint inspection of deploying unit equipment?

Answer 1: The Call Forward Area.







QUESTION 2: What are the two primary types of aircraft that the unit uses when planning strategic airlift movements?

Answer 2: The C-141 and the C-17.







QUESTION 3: True or False. TB 55-46-1 equipment weights are acceptable for final aircraft cargo manifests?

Answer 3: False: Actual measured dimensions and weights must be used when submitting final manifests.







QUESTION 4: What organization at the APOE ensures that aircraft passengers are properly briefed on aircraft safety, and delivers the passengers to the aircraft?

Answer 4: The TALCE briefs passengers and escorts them to the aircraft.



QUESTIONS









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